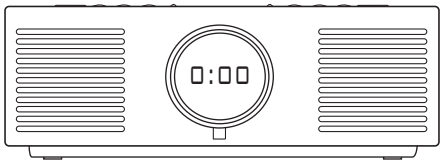

TEAC

SERVICE MANUAL

SX

AM/FM STEREO DIGITAL RADIO WITH CD PLAYER

COMPACT disc DIGITAL AUDIO

NOTES

- PC board shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. they must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.
  [T/C]: USA [E]: Europe

CONTENTS

1 SAFETY INFORMATION 2
2 SPECIFICATIONS 3
3 ADJUSTMENT AND CHECKS 4
4 EXPLODED VIEW AND PARTS LIST 6
5 PC BOARDS AND PARTS LISTS 9
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7 INCLUDED ACCESSORIES 17

1 SAFETY INFORMATION

SAFETY INFORMATION

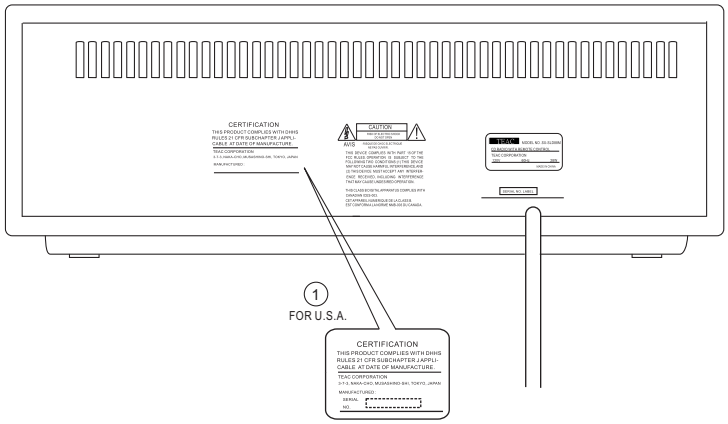
This product has been designed and manufactured according to FDA regulations " title 21, CFR, chapter 1,subchapter J,based on The Radiation Control for Health and Safety Act of 1968" and is classified as class 1 laser product. There is not hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown ①.

• CAUTION

USE OF CONTROLS OR ADJUSTMENT OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT REMOVE THE PROTECTIVE HOUSING USING SCREWDRIVER.

IF THIS PRODUCT DEVELOPS TROUBLE, MAKE A CONTACT WITH OUR SERICEMAN, AND DO NOT USE THE PRODUCT A TROUBLED STATE.



Optical pickup:	
Type	: CMS-B35BG6
Manufacturer	: Samsung Electro-Mechanic
Laser output	: Less than 0.5 mW on the objective lens
Wavelength	: 760 - 800 nm

2 SPECIFICATIONS

TUNER SECTION

Frequency Range (FM):	87.5MHz to 108.00 MHz (100kHz step) - USA 87.5MHz to 108.00 MHz (50kHz step) - EUR
Frequency Range (AM):	520kHz to 1710 kHz (10kHz step) - USA 522kHz to 1620 kHz (9kHz step) - EUR

CD PLAYER Section

Frequency response :	20 Hz ~ 20 kHz (+/- 2 dB)
Wow and Flutter:	Unmeasurable

SPEAKER SYSTEM Section

Type :	65mm x 2
Impedance :	4 ohms

GENERAL

Total Output Power:	4 W + 4 W
Power Requirements:	120V , 60Hz (U.S.A./ Canada model) 230V , 50Hz (Europe model)
Power Consumption:	28 W
Dimension (W x H x D):	340 x 125 x 249 mm
Weight: (net)	3.5 kg
Standard Accessories:	Remote Control Unit (RC-1031) x1 Battery for Remote Control x 1 Stereo mini plug cable x 1 Owner›s Manual x 1 Warranty Card x 1

- Design and specifications are subject to change without notice.
- Illustrations may differ slightly from production models.

3 ADJUSTMENTS AND CHECKS

3-1 TUNER SECTION

- Use a screwdriver with a plastic or ceramic grip for all adjustment.

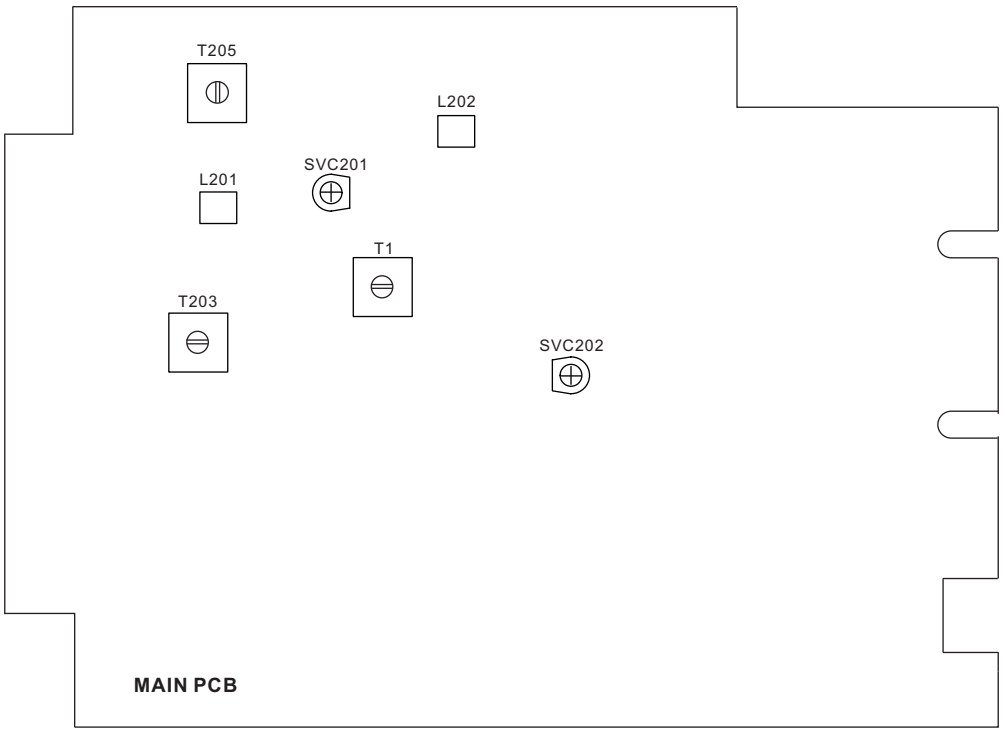
3-1-1 FM adjustment

1. Set the function switch to the FM position.
2. Connect the signal generator output through a 75 ohm dummy antenna to "ANT" on MAIN PCB.
3. Connect the oscilloscope to the speaker terminal.
4. Set the signal generator as listed in the alignment chart.

3-1-2 AM adjustment

1. Set the function switch to the AM position.
2. Connect the test loop antenna across the output of the signal generator.
3. Connect the oscilloscope to the speaker terminal.
4. Set the signal generator as listed in the alignment chart.

3-2 Adjustment and Test Points



3-2-1 FM/AM alignment chart

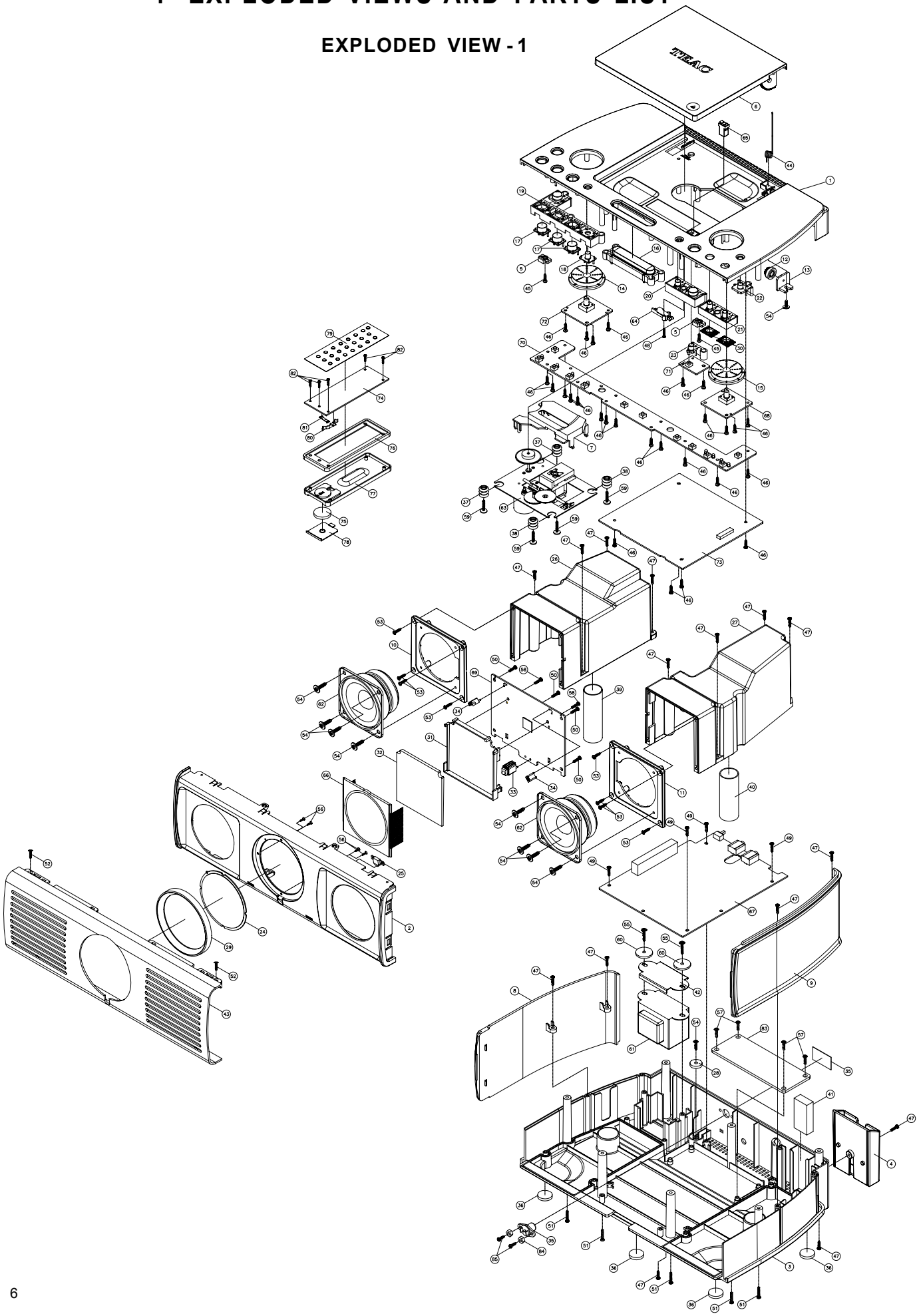
ITEM	SG SETTING	TUNER SETTING	ADJUSTMENT POINT	ADJUSTMENT
FM				
1. IF adjustment	10.7MHz	108MHz	T205	With 10.7 MHz at zero crossover
2. FM band	87.5MHz 1kHz, +/-22.5kHz dev.	87.5MHz	L202	Adjust for max. output
3. Tracking	108MHz 1kHz, +/-22.5kHz dev.	108MHz		Adjust for max. output
	90MHz 1kHz, +/-22.5kHz dev.	90.1MHz	L201	Adjust for max. output
	106MHz 1kHz, +/-22.5kHz dev.	106.1MHz	SV201	Adjust for max. output and best waveform.
	Repeat step 3 to obtain best tracking			
AM				
1. IF adjustment	450kHz 1kHz, 30% mod	1710kHz (USA) 1620kHz (EUR)	T203	Center & maxoutput
2. AM band	520kHz 1kHz, 30% mod	520kHz (USA) 522kHz (EUR)	T1	Adjust for max. output
	1710kHz 1kHz, 30% mod	1710kHz (USA) 1620kHz (EUR)		Adjust for max. output
3. Tracking	600kHz 1kHz, 30% mod	600kHz (USA) 603kHz (EUR)		Adjust for max. output and best waveform.
	1400kHz 1kHz, 30% mod	1400kHz (USA) 1404kHz (EUR)	SV202	
	Repeat step 3 to obtain best tracking			

3-3 CD SECTION

Auto alignment.

4 EXPLODED VIEWS AND PARTS LIST

EXPLODED VIEW - 1



EXPLODED VIEW-1

REF. NO	PARTS NO.	DESCRIPTION	REMARK
1-1	56-02SL88M0A020	TOP CABINET	
1-2	56-04SL88M0A000	FRONT CABINET	
1-3	56-05SL88M0A010	BOTTOM CABINET [T/C]	
	56-05SL88M0A020	BOTTOM CABINET [E]	
1-4	56-07SL88M1A010	REMOTE CONTROLLER BRACKET	
1-5	56-07SL88M48000	CONNECT CLIP	
1-6	56-14SL88M0A010	CD DOOR	
1-7	56-15MS0661B000	LASER COVER	
1-8	56-22SL88M08000	SIDE COVER - LEFT	
1-9	56-22SL88M18000	SIDE COVER - RIGHT	
1-10	56-22SL88M28000	SPEAKER PANEL - LEFT	
1-11	56-22SL88M38000	SPEAKER PANEL - RIGHT	
1-12	56-24SL88M08000	GEAR	
1-13	56-24SL88M18000	GEAR HOLDER	
1-14	56-54SL88M0A000	VOLUME KNOB	
1-15	56-54SL88M1A000	TUNER KNOB	
1-16	56-54SL88M2A010	SNOOZE KNOB	
1-17	56-54SL88M39010	TRANSPARENT KEY-BIG	
1-18	56-54SL88M49010	TRANSPARENT KEY-SMALL	
1-19	56-54SL88M5A010	POWER KEY BRACKET	
1-20	56-54SL88M6A010	STOP / PLAY KEY	
1-21	56-54SL88M7A000	ALARM1/2 - 2 KEY	
1-22	56-54SL88M8A000	ALARM CHECK KEY	
1-23	56-54SL88M9A000	TIME ADJUST KEY	
1-24	56-57SL88M00000	DISPLAY LENS	
1-25	56-57SL88M29000	REMOTE LENS	
1-26	56-62SL88M08000	SPEAKER TUBE - LEFT	
1-27	56-62SL88M18000	SPEAKER TUBE - RIGHT	
1-28	56-69SL88M08000	AC CORD PRESS PLATE	
1-29	56-78SL88M0G000	DISPLAY RING	
1-30	56-78SL88M19000	TRANSPARENT KNOB RING	
1-31	56-07SL88M09000	LCD BRACKET	
1-32	56-57SL88M10000	BACK LIGHT LENS	
1-33	56-07SL88M28000	REMOTE SENSOR BRACKET	
1-34	56-07SL88M38000	BACK LIGHT LED BRACKET	
1-35	45-194150000020	FM ANT 1.5M [E]	
	57-08SLD88M0020	PVC PLATE [T/C]	
1-36	58-263152500020	HARD RUBBER FOOT	
1-37	58-61M520R02120	SHOCK ABSORBER (PINK)	
1-38	58-61M620R00120	SHOCK ABSORBER (BLACK)	
1-39	58-64SLD88M0020	PAPER TUBE-LONG	
1-40	58-64SLD88M0120	PAPER TUBE-SHORT	
1-41	58-82SLD8800020	SPONGE	
1-42	61-11SLD88M0120	METAL PLATE	
1-43	61-32SLD88M0020	FRONT PANEL (ALUMINA)	
1-44	61-97SLD88M0021	CD DOOR SPRING	
1-45	66-140226180321	SELF-TAPPING SCREW TA/BH 2.6X8MM	
1-46	66-140226210321	SELF-TAPPING SCREW TA/BH 2.6X10MM	
1-47	66-140230212321	SELF-TAPPING SCREW TA/BH 3X12MM	
1-48	66-140320212321	SELF-TAPPING SCREW TA/PH 2X12MM	

EXPLODED VIEW-1

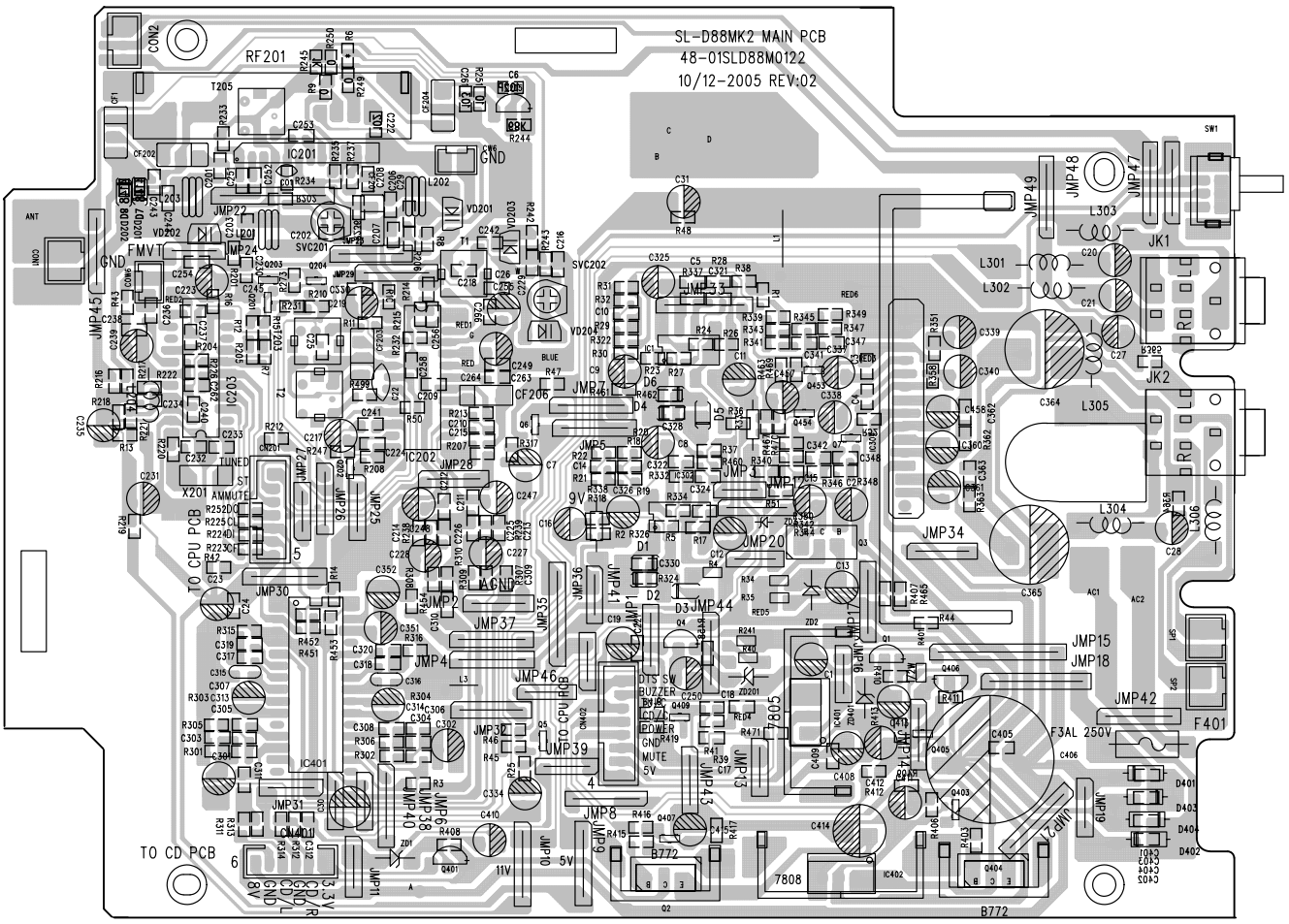
REF. NO	PARTS NO.	DESCRIPTION	REMARK
1-49	66-140330180321	SELF-TAPPING SCREW TA/PH 3X8MM	
1-50	66-140330210321	SELF-TAPPING SCREW TA/PH 3X10MM	
1-51	66-140330216321	SELF-TAPPING SCREW TA/PH 3X16MM	
1-52	66-140526180311	SELF-TAPPING SCREW TA/KH 2.6X8MM	
1-53	66-140530210321	SELF-TAPPING SCREW TA/KH 3X10MM	
1-54	66-140830212321	SELF-TAPPING SCREW TA/WH 3X12MM	
1-55	66-140830216321	SELF-TAPPING SCREW TA/WH 3X16MM	
1-56	66-150520160321	SELF-TAPPING SCREW TB/KH 2X16MM	
1-57	66-150830180321	SELF-TAPPING SCREW TB/WH 3X8MM	
1-58	66-140330180321	SELF-TAPPING SCREW TA/PH 3X8MM	
1-59	66-151426219221	SCREW TWP/BO 2.6X19 MC	
1-60	68-112323161000	METAL WASHER 3.2X16X1MM	
1-61	⚠ 18-205SLD880190	H/TRANSFORMER EI-48 [E]	
	⚠ 18-205SLD881190	H/TRANSFORMER EI-48 [T/C]	
1-62	19-021082800020	SPEAKER 4 OHM	
1-63	20-70CMSB35BG60	CD MECHANISM	
1-64	41-061120070020	LEAF SWITCH	
1-65	41-210240000010	DOOR LOCK	
1-66	57-26SLD88M0020	FILTER SHEET	
1-67	05-01SLD88M0000	MAIN PCB ASSY [E]	
	05-01SLD88M0010	MAIN PCB ASSY [T/C]	
1-68	05-02SLD88M0010	TUNER PCB ASSY	
1-69	05-04SLD88M0010	DISPLAY PCB ASSY	
1-70	05-05SLD88M0001	KEY PCB ASSY	
1-71	05-05SLD88M0011	CLOCK PCB ASSY	
1-72	05-19SLD88M0010	VOLUME PCB ASSY	
1-73	05-30SLD88M0020	CD PCB ASSY [E]	
	05-30SLD88M0010	CD PCB ASSY [T/C]	
1-74	05-13SLD88M0000	REMOTE PCB ASSY	
1-75	51-021301000080	LITHUM BATTERY DOOR	
1-76	56-43DX0150A000	REMOTE FRONT CABINET	
1-77	56-43DX01518000	REMOTE REAR CABINET	
1-78	56-44DX01508000	REMOTE BATTERY DOOR	
1-79	57-33SLD88M0020	REMOTE PLATE - TEAC	
1-80	61-25DX01500020	BATTERY PLATE+	
1-81	61-25DX01500120	BATTERY PLATE -	
1-82	66-140520170121	SELF-TAPPING SCREW TB/KH 2X7MM	
1-83	61-11SLD88M0020	WEIGHT IRON [E]	
1-84	67-021261000020	NUT M2.6MM [E]	
1-85	66-120226210321	MACHINE SCREW MS/BH 2.6X10MM [E]	

5 PC BOARDS AND PARTS LIST

MAIN PCB ASSY

REF. NO		PARTS NO.	DESCRIPTION	REMARKS
		05-01SLD88M000	MAIN PCB ASSY [E]	
		05-01SLD88M010	MAIN PCB ASSY [T/C]	
		48-01SLD88M0122	MAIN PCB	
		40-212680215020	AM ANT COIL 68:15T	
C414	⚠	26-017100650121	E.CAP 1000UF/10V	
C364,365	⚠	26-017100750221	E.CAP 1000UF/16V	
C406	⚠	26-017680850121	E.CAP 6800UF/25V	
CF201,204		31-028107000120	CER. FILTER LT10.7MA5-A	
CF203		31-026455000110	CER. FILTER SFU450B	
CF206		31-046456000220	RESONATOR ZTB456F15	
CON1,SP1,2		43-012250120120	WAFER 2.5MM 2P	
CN201		43-012200170120	WAFWE 2MM 7PIN	
CN401		43-012200160120	WAFER 2MM 6PIN	
CN402		43-012200180120	WAFER 2MM 8PIN	
D1-6		12-1N4148000021	DIODE - 1N4148	
D7,8		12-PMLL4148L021	SMD DIODE - PMLL4148L	
F401	⚠	46-015300300010	AXIAL FUSE 3A/250V	
IC1,302		16-BA4558000021	IC - BA4558	
IC202		16-LA1832000021	IC - LA1832	
IC203		16-LC7213100021	IC - LC72131	
IC301		16-LC7534200021	IC - LC75342	
IC304		16-BA5417000021	IC - BA5417	
IC401		16-KA7805000121	IC - KA7805	
IC402		16-KA7808000221	IC - KA7808	
JK1,4		43-431360001020	PHONE JACK D3.6MM	
L301-306		38-013100050220	AXIAL INDUCTOR 10UH	
PT201		37-09A151000020	TUNER FE450-G11 [E]	
Q1,4,401		11-PSS8050C0021	SMD TR - PSS8050C	
Q2,404		11-KSB772YS0021	TR - KSB772Y	
Q3		11-KSD882Y00021	TR - KSD882Y	
Q5,6,201-203,403, Q405,407,409,453,454		11-PMBT39040121	SMD TR - PMBT3904	
Q204		11-KTC9015S0025	SMD TR - 9015S-C	
Q406		11-PSS8550C0025	SMD TR - PSS8550C	
SW1		41-132222000820	SWITCH SK-22D22-G8	
SV202		27-501602202020	TRIMMER 20PF	
T1		40-02660R002020	I.F.T - 660R (RED)	
T2		31-038107020110	DISC.FILTER CDA10.7MG46-2A	
T203		40-02A049004020	I.F.T - A049 (YELLOW)	
VD203,204		12-1SV149000021	VAR-DIODE - 1SV-149	
X201		31-017450002030	CRYSTAL 4.500MHZ	
ZD1		12-011390320125	ZENER DIODE 3.9V	
ZD2		12-011910320125	ZENER DIODE 9.1V	
ZD3		12-011430320125	ZENER DIODE 4.3V	
ZD201		12-011560320125	ZENER DIODE 5.6V	
ZD401		12-012110320125	ZENER DIODE 11V	

MAIN PCB

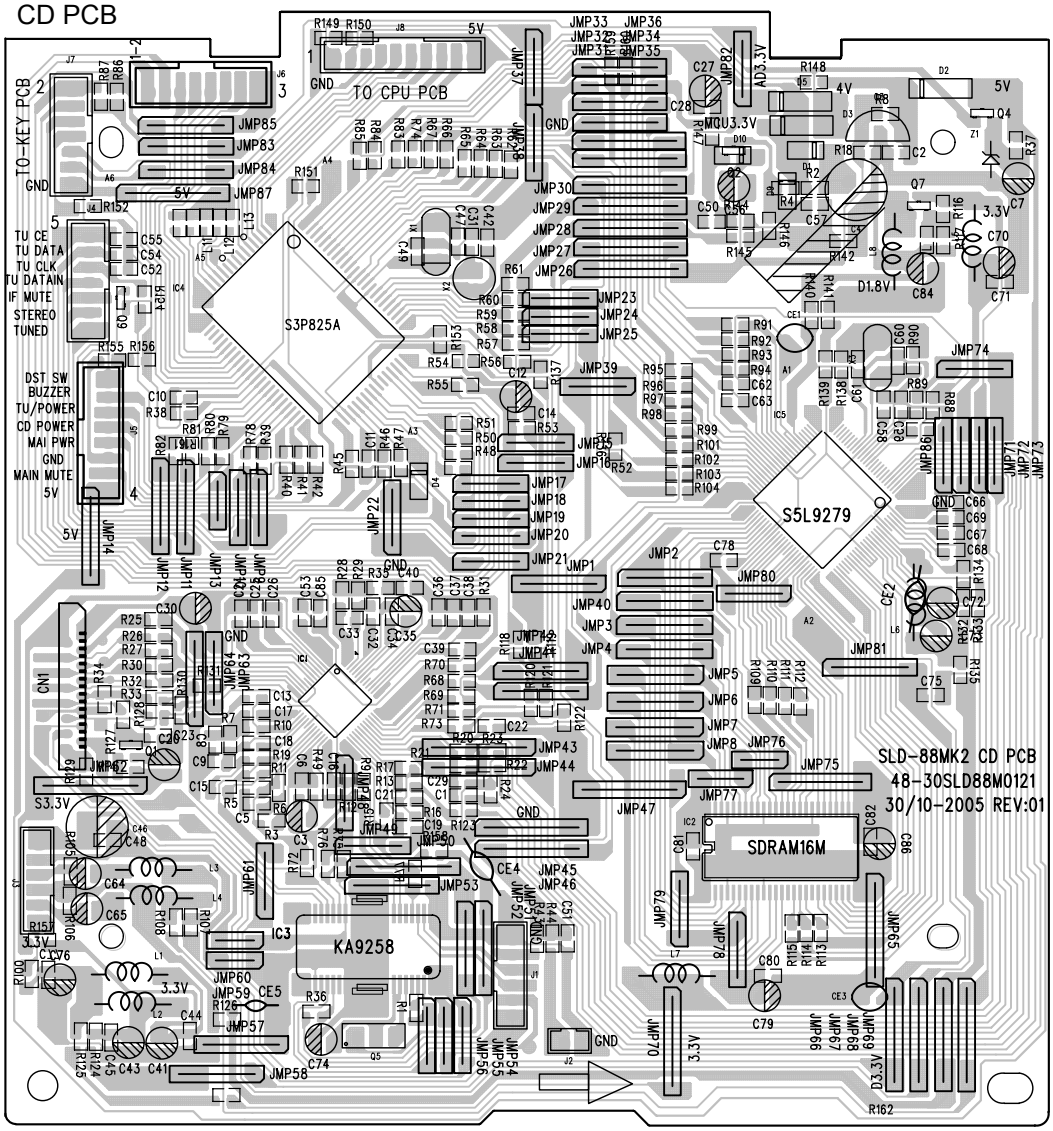

SL-D88MK2 MAIN PCB
48-01SLD88M0122
10/12-2005 REV:02
TO CPU PCB
TO CD PCB
TO CPU PCB
RF201
IC201
IC202
IC401
X201
JK1
JK2
F3AL 250V
F401
7805
7808
9V
5V
11V
3.3V
8V
AGND
GND

CD PCB ASSY

REF. NO		PARTS NO.	DESCRIPTION	REMARKS
		05-30SLD88M0010	CD PCB ASSY [T/C]	
		05-30SLD88M0020	CD PCB ASSY [E]	
		48-30SLD88M0121	CD PCB	
C27	⚠	26-017100650121	E.CAP - 1000UF/10V	
CN1		43-022100216120	F.F.C WAFER 1MM 16P	
D1,4,9,10		12-1N4148000021	DIODE 1N4148	
D3,5		12-1N4001000021	DIODE 1N4001	
IC1		16-S1L9226X0121	IC - S1L9226X01	
IC2		16-HY57V1610121	IC - HY57V161610	
IC3		16-D92580000021	IC - D9258	
IC4		16-S3P825A01121	IC - S3P825AXZZ	
IC5		16-S5L927900121	IC - S5L9279X01	
J2		43-012200120120	WAFER 2MM 2P	
J3		43-012200160120	WAFER 2MM 6P	
J8		43-022200210120	WAFER 2MM 10P	
L1-8		38-013100050020	AXIAL INDUCTOR 10UH	
JMP4,87		32-033100000020	FERRITE BEAD W/5T 10UH	
Q1		11-PMBT39060021	SMD TR - PMBT3906	
Q2,4.7,9		11-PMBT39040021	SMD TR - PMBT3904	
Q3		16-PST600D00021	IC - PST600D	
Q5		11-KSB772YS0021	TR - KSB772Y	
X1		31-017800002120	CRYSTAL 8.00MHZ	
X2		31-015320003310	CRYSTAL 32.768KHZ	
X3		31-018169302220	CRYSTAL 16.9344MHZ	
ZD1		12-011470320121	ZENER DIODE 4.7V	

SX

CD PCB


SLD-88MK2 CD PCB
48-30SLD88M0121
30/10-2005 REV:01
S3P825A
S5L9279
SDRAM16M
KA9258
TO-KEY-PCB
TO CPU PCB
TU CE
TU DATA
TU CLK
TU DATAIN
IF MUTE
STEREO
TUNED
DST SW
BUZZER
TU/POWER
CD POWER
MAI PWR
GND
MAIN MUTE
5V
3.3V
D1.8V
MCU3.3V
AD3.3V

KEY PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-05SLD88M0001	KEY PCB ASSY	
	48-05SLD88M0122	KEY PCB	
CON1	43-022200180120	WAFER 2MM 8PIN	
CON4	43-022200170120	WAFER 2MM 7PIN	
D1	12-1N4148000021	DIODE 1N4148	
LED3-10	13-011300022020	LED LAMP 3MM	
Q5,7,101-103	11-PMBT39040021	SMD TR - PMBT3904	
Q104	11-PMBT39060021	SMD TR - PMBT3906	
SW2	41-150010110020	TACT SWITCH 4.5MM	
SW101-112	41-150010030010	TACT SWITCH 5MM 6 LEGS	

DISPLAY PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-04SLD88M0010	DISPLAY PCB ASSY [T/C]	
	05-04SLD88M0020	DISPLAY PCB ASSY [E]	
	48-04SLD88M0120	DISPLAY PCB	
Q1	11-PMBT39060021	SMD TR - PMBT3906	
Q2,3	11-PMBT39040021	SMD TR - PMBT3904	
D3	12-1N4148000021	DIODE 1N4148	
LED1,2	13-011200121020	LED LAMP 2X4MM (WHITE)	
LCD1	13-05SLD88M0120	LCD DISPLAY KPS-M0340-TW-4 [E]	
	13-05SLD88M0220	LCD DISPLAY KPS-M0340-TW-4 [T/C]	
UI	16-PT6524000021	IC - PT6524-LQFP	
REMOTE 1	17-05FM60380010	OPTIC SENSER #FM-6038TM2	

VOLUME PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-19SLD88M0010	VOLUME PCB ASSY	
	48-19SLD88M0120	VOLUME PCB	
VOL2	22-501200001020	ROTARY ENCODER	

TUNER PCB ASSY

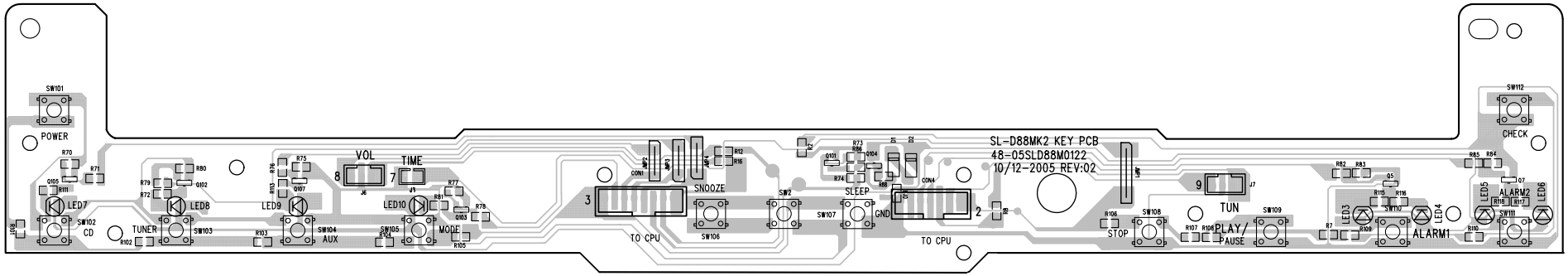
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-02SLD88M0010	TUNER PCB ASSY	
	48-19SLD88M1120	TUNER PCB	
VOL1	22-501200001020	ROTARY ENCODER	

CLOCK PCB ASSY

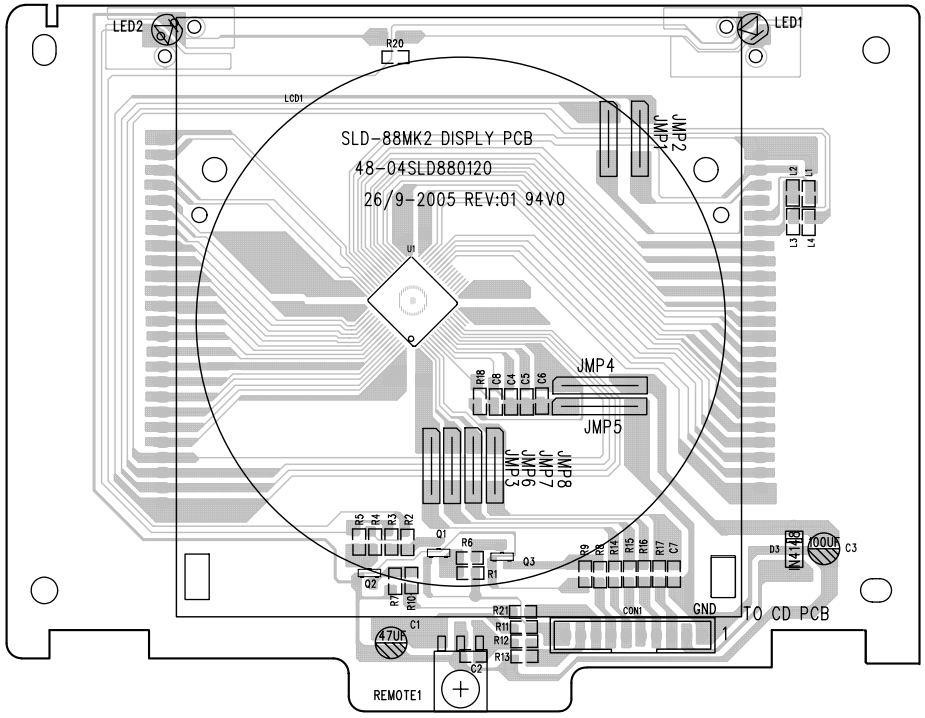
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-05SLD88M0011	CLOCK PCB ASSY	
	48-05SLD88M1120	CLOCK PCB	
SW1	41-150010030010	TACT SWITCH 5MM 4 LEGS	

SX

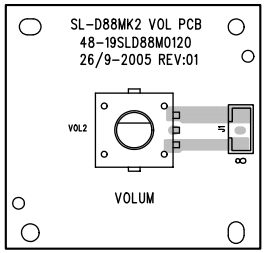
KEY PCB



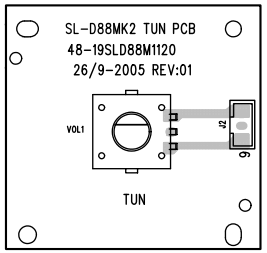
DISPLAY PCB



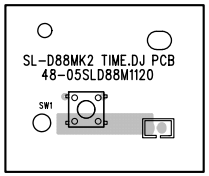
VOLUME PCB



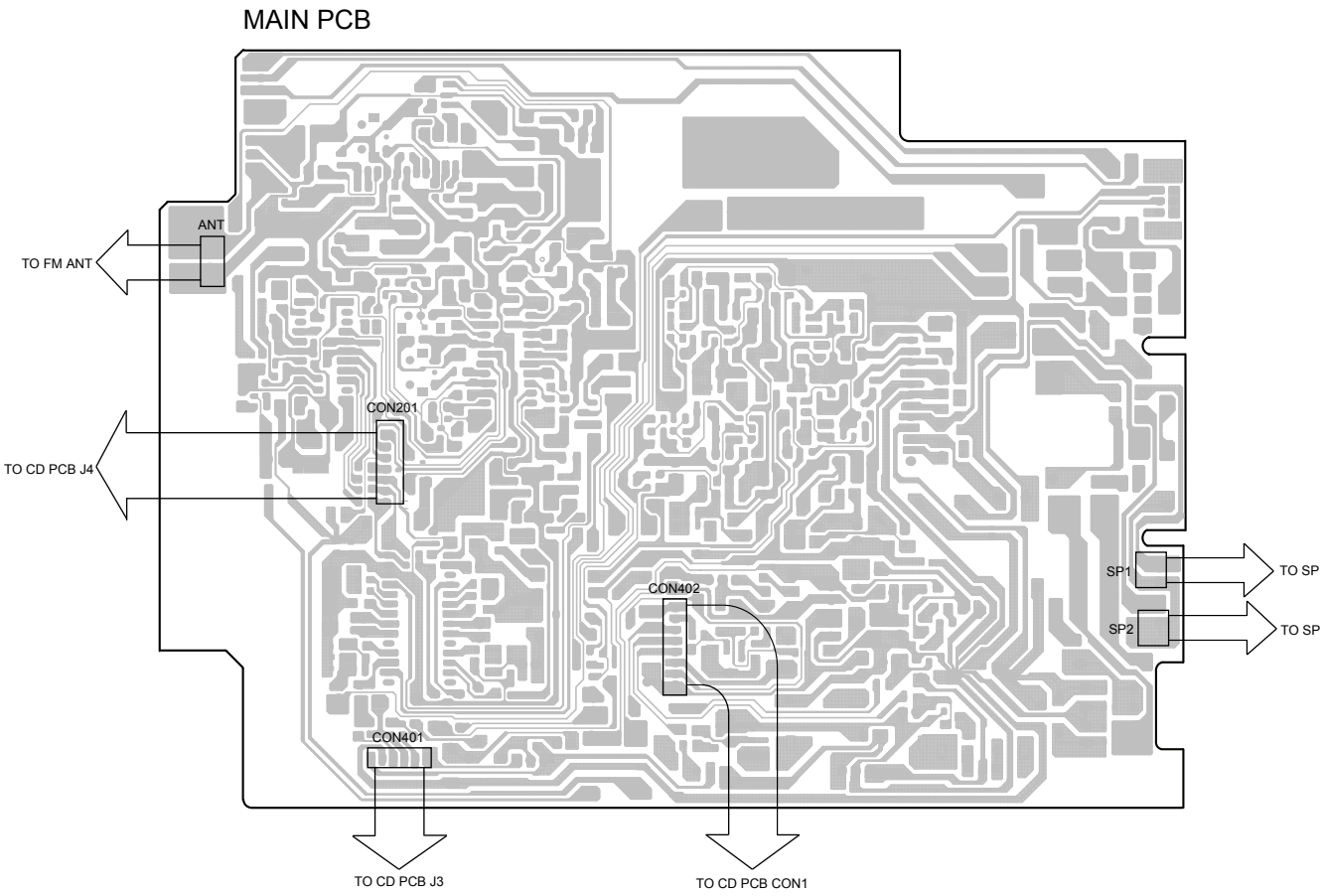
TUNER PCB



CLOCK PCB



6 WIRING DIAGRAM



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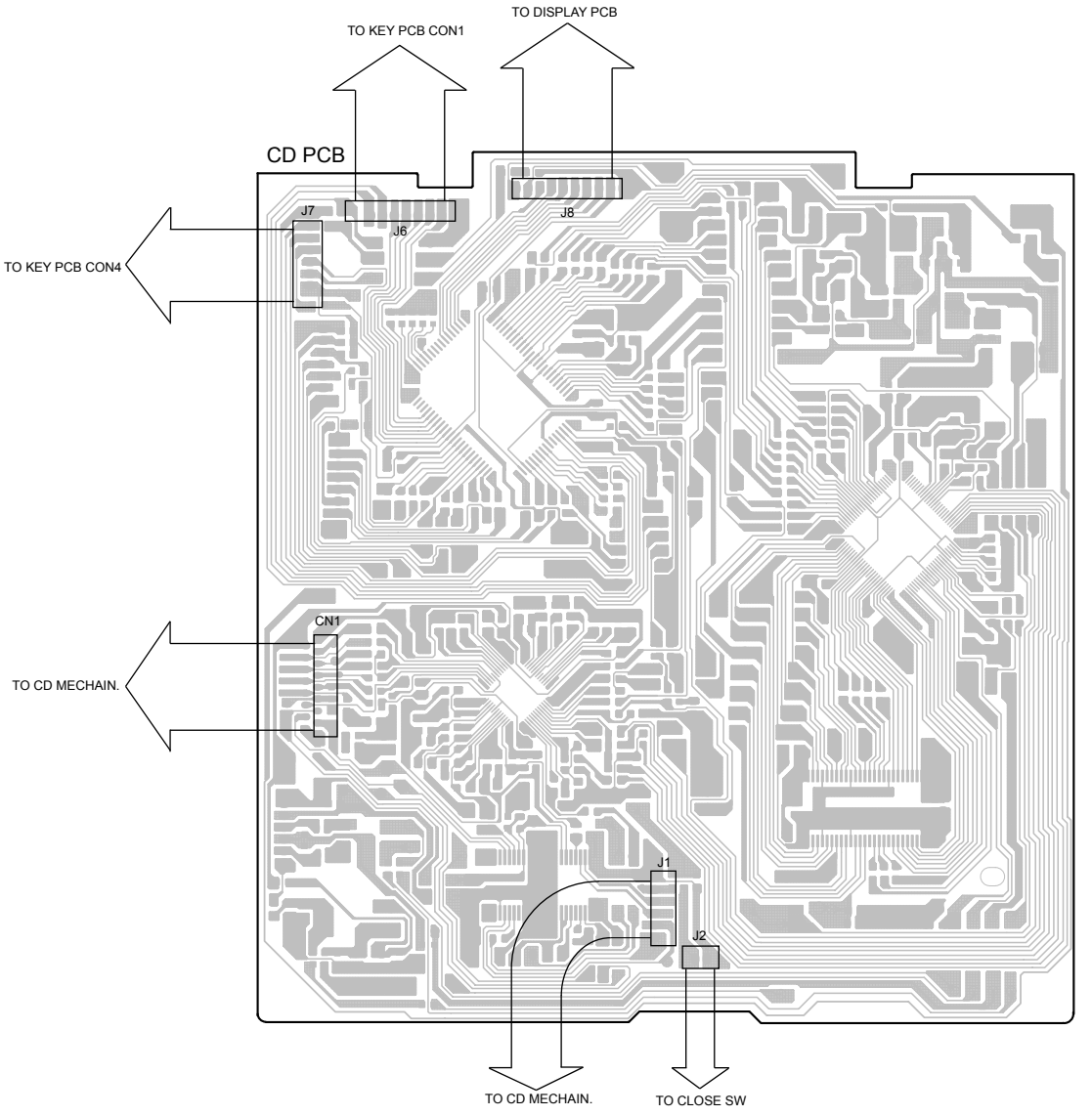
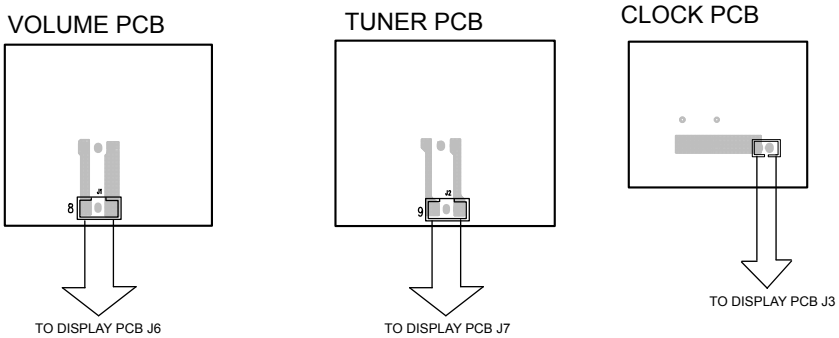

TO KEY PCB CON1
TO DISPLAY PCB
CD PCB
J7
J6
J8
TO KEY PCB CON4
CN1
TO CD MECHAIN.
J1
J2
TO CD MECHAIN.
TO CLOSE SW


VOLUME PCB
8
TO DISPLAY PCB J6
TUNER PCB
9
TO DISPLAY PCB J7
CLOCK PCB
TO DISPLAY PCB J3

7 INCLUDED ACCESSORIES

INCLUDED ACCESSORIES

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	77-20SLD88M0020	INSTRUCTION BOOK - E/F [T/C]	
	77-20SLD88M0520	INSTRUCTION BOOK - E/F/SP [E]	
	77-20SLD88M0620	INSTRUCTION BOOK - GE/IT/DU [E]	
	02-17SLD88M0000	REMOTE CINTROL	
	51-021301000080	LITHIUM BATTERY CR2030 (GP)	
	45-26350000020	CONNECT CORD 3.5MM ST/PLUG x 2	

SX

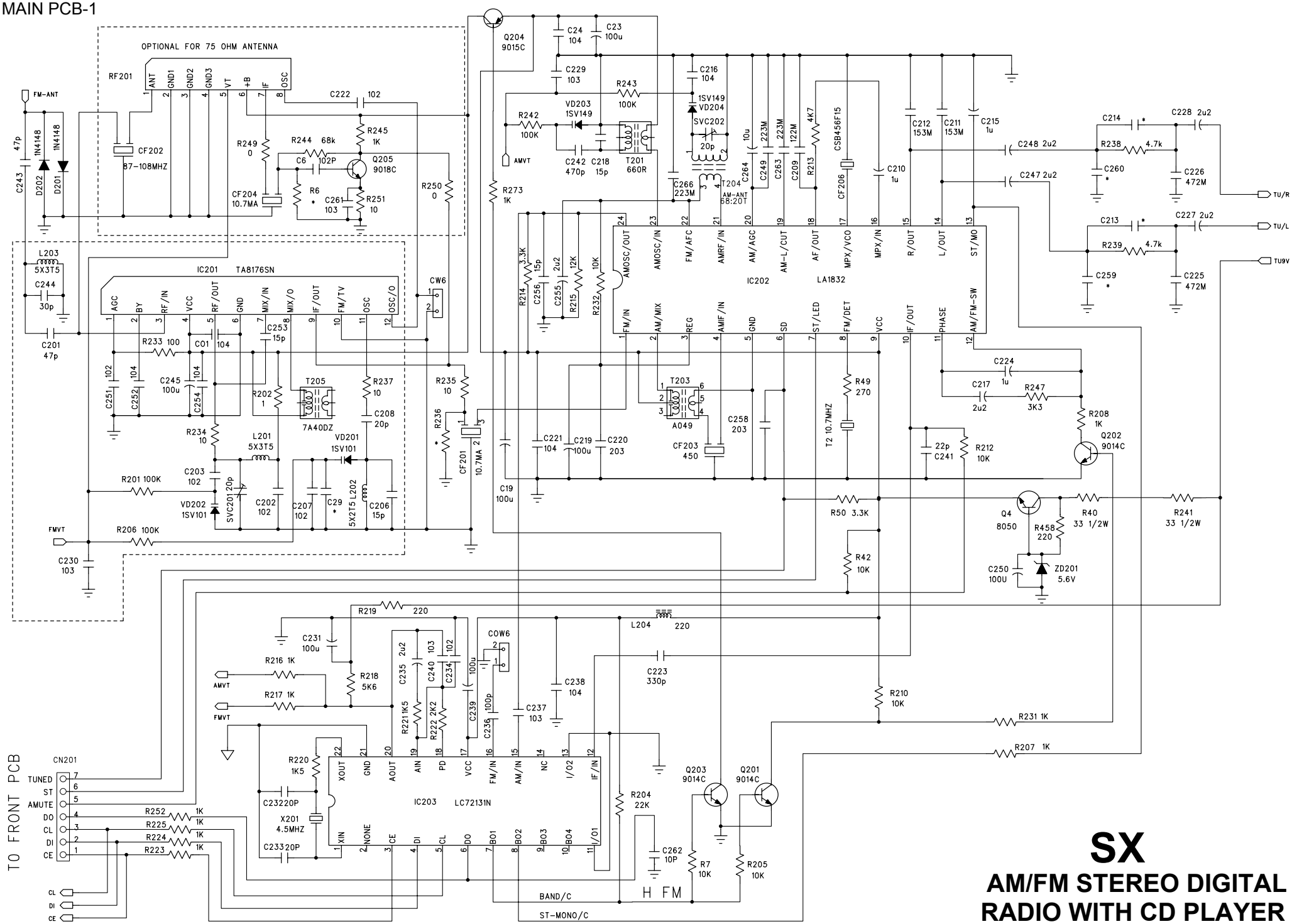
TEAC

TEAC CORPORATION	3-7-3 Nakacho, Musashino-shi, Tokyo 180-8550, Japan Phone:(0422)52-5081
TEAC AMERICA, INC.	7733 Telegraph Road, Montebello, California 90640 Phone: (323)726-0303
TEAC CANADA LTD.	5939 Wallace Street, Mississauga, Ontario L4Z 1Z8, Canada Phone: (905)-890-8008
TEAC MEXICO, S.A.De C.V.	Campesinos N°184,Colonia.Granjas Esmeraida, Delegacion Iztapalapa,CP 09810,Mexico DF Phone: (525)-581-5500
TEAC UK LIMITED	Unit 19 & 20, The Courtyards, Hatters Lane, Watford, Hertfordshire, WD18 8TE5, U.K. Phone:(0845) 130-2511
TEAC EUROPE GmbH	Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany Phone: 0611-71580
TEAC ITALIANA S.p.A.	Via C, Cantu 9/A, 20092 Cinisello Balsamo, Milano, Italy Phone:02-66010550
TEAC AUSTRALIA PTY., LTD. A.B.N. 80 005 408 462	280 William Street, Melbourne VIC 3000, Australia Phone:(03)9672-2400

MAR 2006

PREPARED IN HONG KONG

MAIN PCB-1



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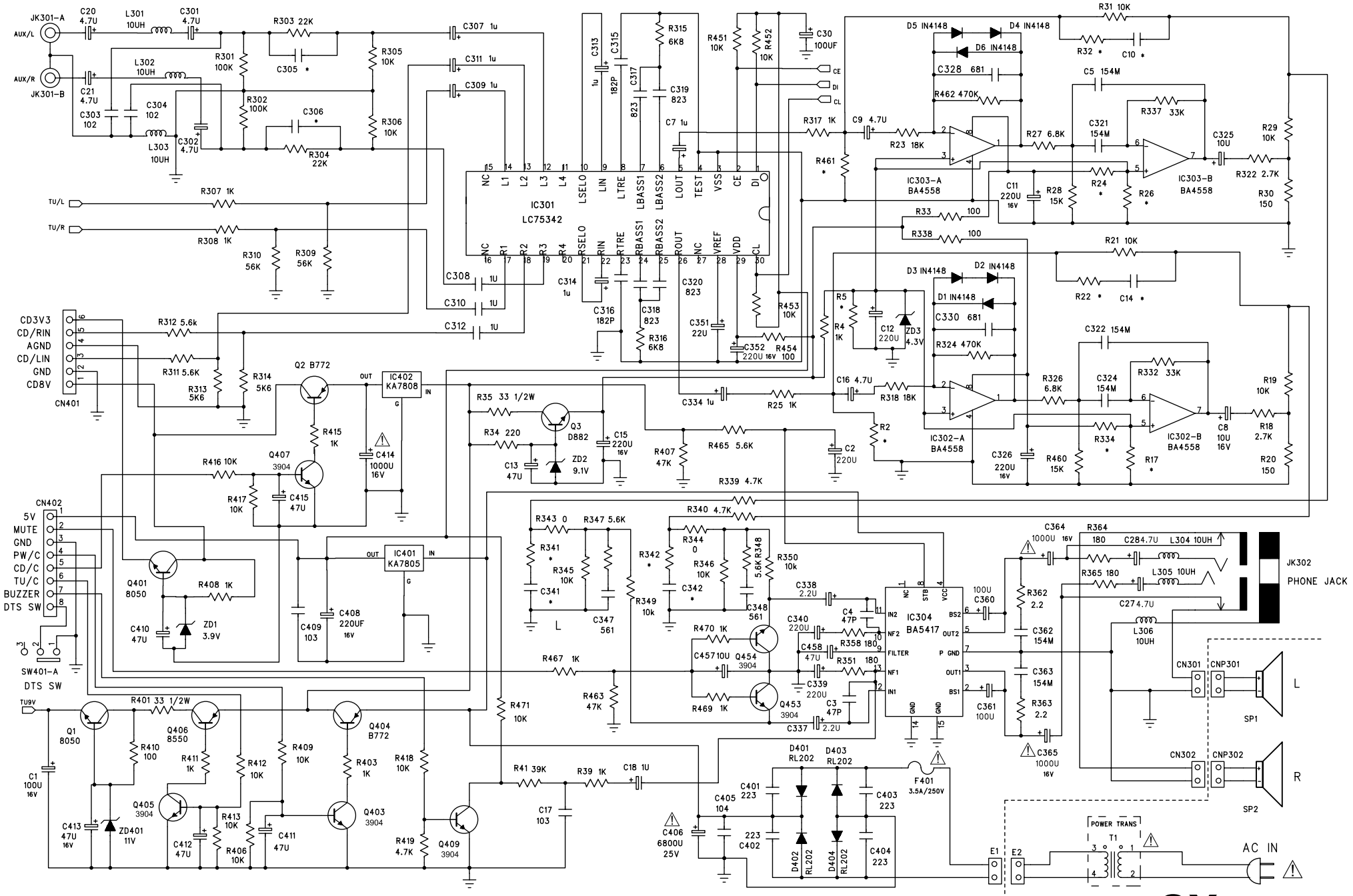
AM/FM STEREO DIGITAL RADIO WITH CD PLAYER

MAIN PCB-2



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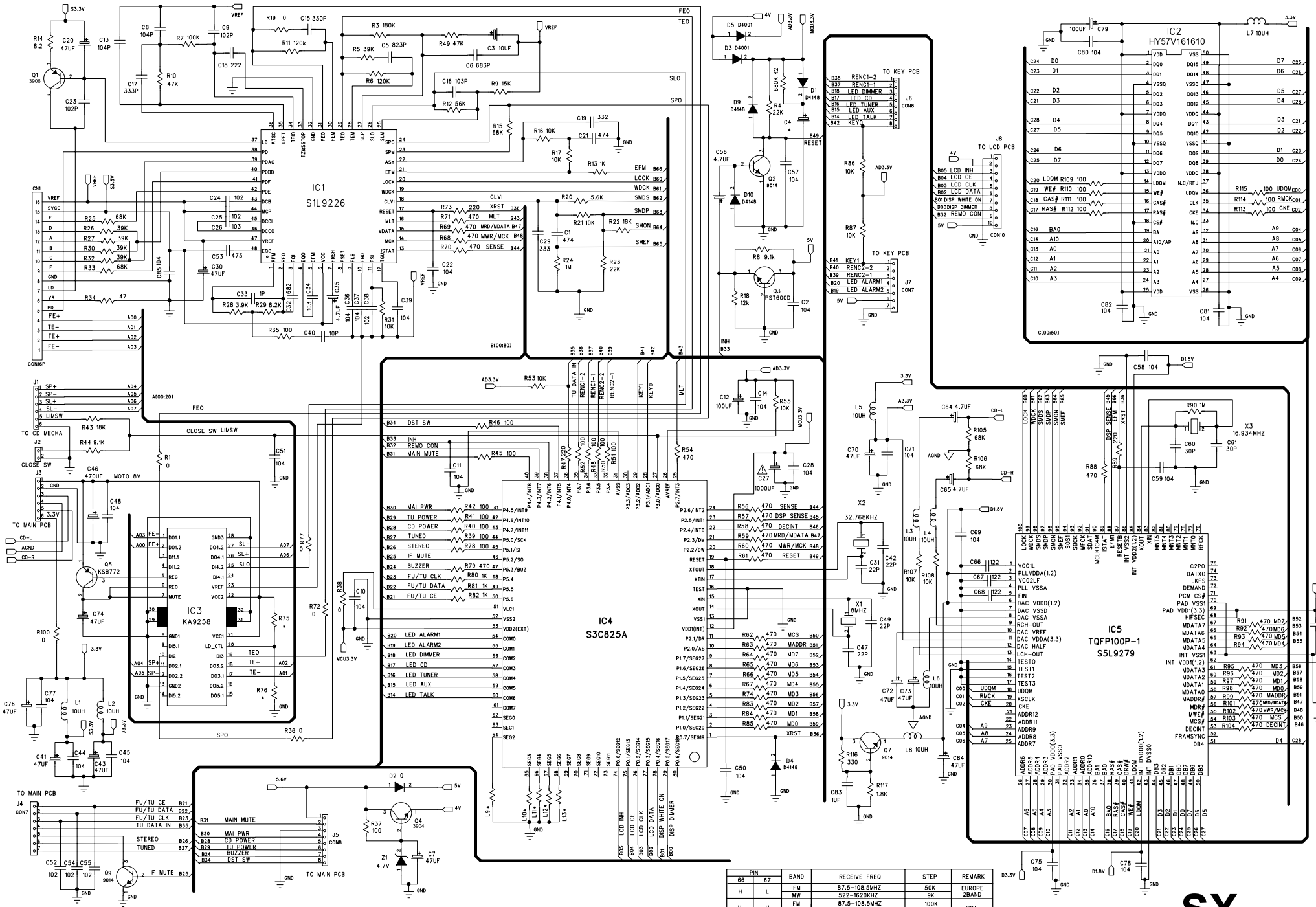
AM/FM STEREO DIGITAL RADIO WITH CD PLAYER

CD PCB



PIN		BAND	RECEIVE FREQ	STEP	REMARK
66	67				
H	L	FM	87.5–108.5MHZ	50K	EUROPE 2BAND
		MW	522–1620KHZ	9K	
H	H	FM	87.5–108.5MHZ	100K	USA
		AM	520–1710KHZ	10K	
L	L	FM	76–90MHZ	100K	JAPAN
		AM	522–1629KHZ	9K	

62	63	64	65	68	69
		MUTE ACTIV	CD FF MUTE	CLCOK	CD ONLY
		L=L MUTE	L=MUTE	L=DIGITAL	L=CD

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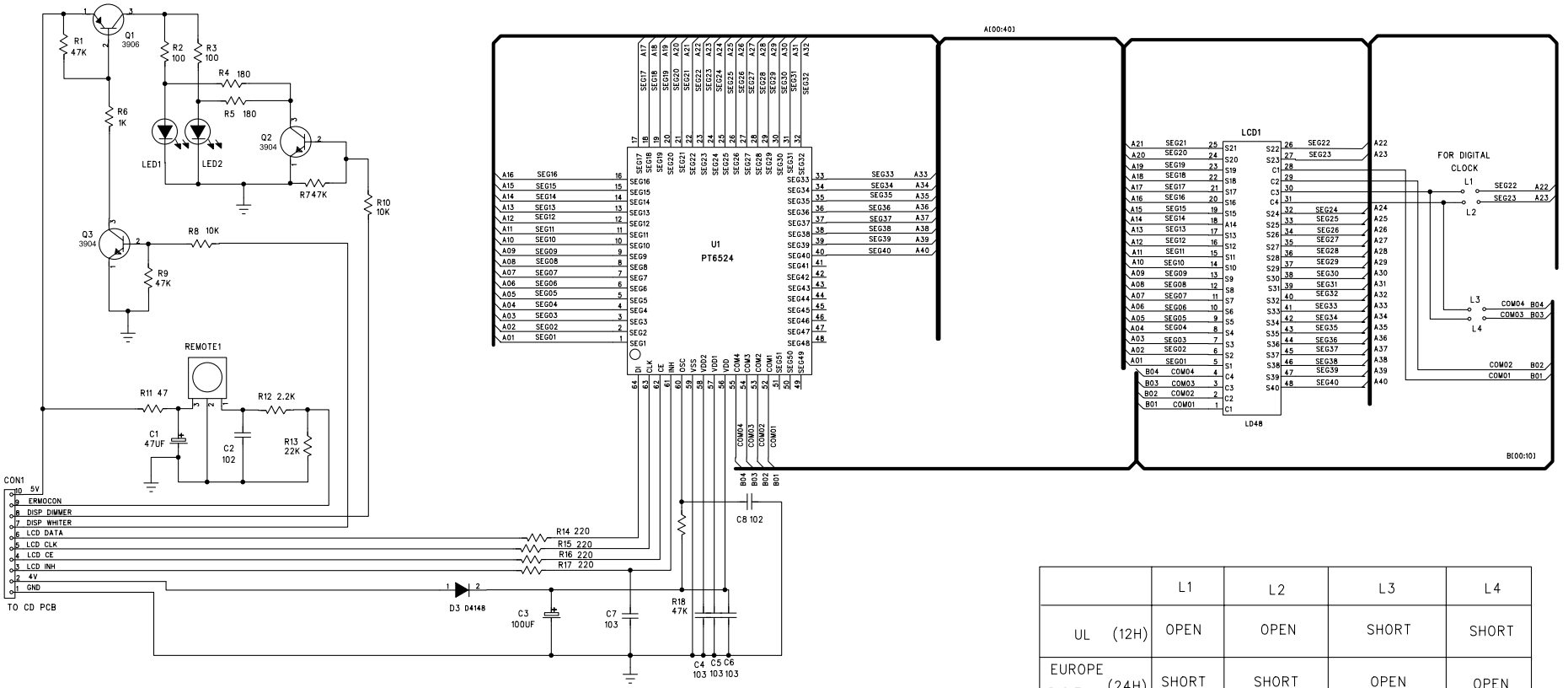
AM/FM STEREO DIGITAL RADIO WITH CD PLAYER

DISPLAY PCB



	L1	L2	L3	L4
UL (12H)	OPEN	OPEN	SHORT	SHORT
EUROPE DIGITAL (24H)	SHORT	SHORT	OPEN	OPEN

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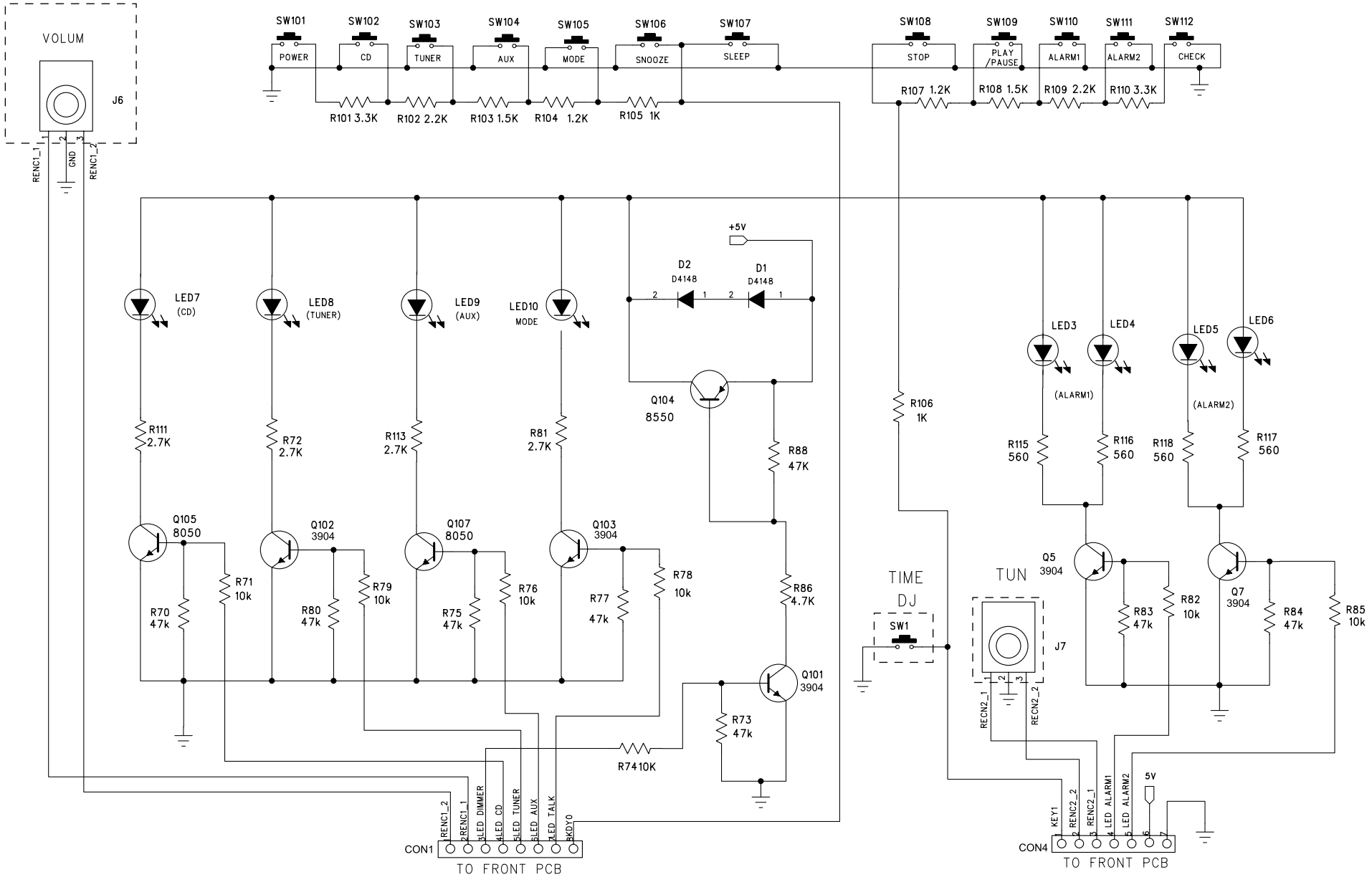
AM/FM STEREO DIGITAL RADIO WITH CD PLAYER

KEY PCB



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AM/FM STEREO DIGITAL RADIO WITH CD PLAYER